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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,682	07/20/2006	Reinhold J. Leyrer	293590US0PCT	6542

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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER
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CHIN, HUI H

ART UNIT	PAPER NUMBER
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1796

NOTIFICATION DATE	DELIVERY MODE
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10/07/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/586,682	<b>Applicant(s)</b> LEYRER ET AL.	
	<b>Examiner</b> HUI CHIN	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3, 7-9 and 11-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7-9 and 11-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. The office action is in reference to the Amendment, filed on 7/6/2009. Claims 1, 24, 29, and 49 have been amended and claim 10 has been cancelled. Claims 1-3, 7-9, and 11-51 are now pending.

2. In view of the Response, the previous rejections of claims 1-3, 7, 9, 11-12, 19-20, 25-28, 30-32, 35-37, 39-40, 45-46, and 50-51 under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Huffer et al. (US 2005/0090611), claims 8 and 38 under 35 U.S.C. 103(a) as being unpatentable over Huffer et al. (US 2005/0090611) in view of Lange et al. (US 2004/0171759), claims 13-14, 22-24, 29, 41, and 47-49 under 35 U.S.C. 103(a) as being unpatentable over Huffer et al. (US 2005/0090611) in view of Deroo et al. (US 2003/0225168), claims 15-18, 21, and 42-44 under 35 U.S.C. 103(a) as being unpatentable over Huffer et al. (US 2005/0090611) in view of Allgaier et al. (US Patent 6,677,293), and claims 33 and 34 under 35 U.S.C. 103(a) as being unpatentable over Huffer et al. (US 2005/0090611) in view of Candau et al. (US 2003/0129151) are withdrawn.

### ***Claim Objections***

3. Claims 13 and 16-19 are objected to because of the following informalities: Claims 13 and 16-19, these claims are dependent on claim 10 which has been cancelled.

Appropriate corrections are required.

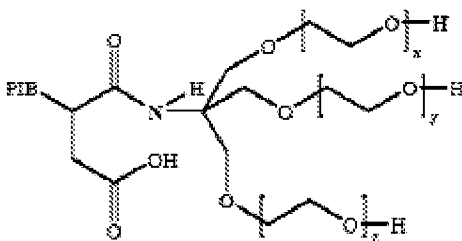
***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 7, 9, 11-32, 35-37, 39-51 are rejected under 35 U.S.C. 103(a) as obvious over Huffer et al. (US 2005/0090611) in view of Allagier et al. (US Patent 6,677,293).

Huffer et al. disclose an oil-in-water emulsion which contains a) one or more of amphiphilic compounds which are composed of a hydrophobic compound which is formed from a polyisobutylenes which have a high content of terminal double bonds ( $\geq 85$  mol %), and a hydrophilic compound which can be formed from reaction products of alkanolamines with ethylene oxide which reads on monoaminoethylene oxide, b) oil, and c) water (claims 24, 44; [0001]; [0011] - [0029]; [0091]; [0094]; [0101]; [0136]).



Art Unit: 1796

Huffer et al. disclose a procedure to make the emulsion, comprising one or more hydrophilic units, which is substantially identical to the invention. Huffer et al. therefore anticipate the instantly claimed invention with the understanding that the hydrophilic units per Huffer et al. are from monoaminoethylene oxide as the claimed invention. Thus, the claimed limitation would well be met since the reactants to make the hydrophilic units are essentially the same as the claimed components.

Huffer et al. are silent on the ABA structure.

Allagier et al. disclose an emulsion which comprises water, oil and an additive which comprises an AB block copolymer having a water-soluble block A and a water-insoluble block B and wherein said AB block copolymer has a structure according to the pattern ABA or BAB, wherein the block A polymer has a molecular weight between 500 u and 60,000 u and the block B polymer has a molecular weight between 500 u and 60,000 u to provide increased efficiency of the surfactant mixture, suppression of lamellar mesophases in microemulsions and emulsions, and interfacial surface tension between water and oil (claims 1, 7-8, col. 1, lines 8-11, col. 2, lines 6-9). In light of such benefit, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the ABA structure in the disclosure of Huffer et al. with the expected success.

The limitations of claims 2, 13-14, and 30 can be found in Huffer et al. at paragraph [0132], where it discloses 0.2 to 10% by weight of at least one amphiphilic polymer.

The limitations of claims 3, 28, and 31-32 can be found in Huffer et al. at paragraph [0101], where it discloses polyisobutylenes having  $\geq 85$  mol % of terminal double bonds.

The limitations of claims 7 and 37 can be found in Huffer et al. at paragraphs [0079] – [0080], where it discloses the functionalization of polyisobutene with polar groups.

The limitations of claims 9 and 39 can be found in Huffer et al. at paragraphs [0011] – [0016], where it discloses the reaction of polyisobutenes with alkylene oxides.

The limitations of claim 11 can be found in Huffer et al. at paragraph [0201], where it discloses the AB structure.

The limitations of claims 12 and 40 can be found in Huffer et al. at claim 44 and paragraph [0042], where it discloses blends of amphiphilic polymers.

The limitations of claims 19 and 45 can be found in Huffer et al. at Example 1, where it discloses the PIBSA.

The limitations of claims 20 and 46 can be found in Huffer et al. at Example 1 and paragraphs [0011] - [0043], where it discloses the process for the preparation of aqueous polymer dispersions.

The limitations of claims 25-27 and 50-51 can be found in Huffer et al. at paragraph [0187], where it discloses the application in paint systems and coating systems.

The limitations of claim 35 can be found in Huffer et al. at paragraph [0097], where it discloses the hydrophilic unit is ethylene oxide.

The limitations of claim 36 can be found in Huffer et al. at paragraphs [0091] and [0094], where it discloses the reaction product of alkanolamines with ethylene oxide which reads on monoaminoethylene oxide.

6. Claims 8 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huffer et al. (US 2005/0090611) in view of Allagier et al. (US Patent 6,677,293), as applied to claims 1-3, 7, 9, 11-32, 35-37, 39-51, and further in view of Lange et al. (US 2004/0171759).

The disclosure of Huffer et al. in view of Allagier et al. is adequately set forth in paragraph 5 and is incorporated herein by reference.

Huffer et al. in view of Allagier et al. are silent on the functionalization of polyisobutenes.

Lange et al. disclose the functionalization of polyisobutenes ([0019] – [0028]) to provide a polymer composition which has good mechanical properties and/or good interfacial properties, is easy to process and is stable to demixing ([0006]). In light of such benefit, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the functionalized polyisobutenes in the disclosure of Huffer et al. with the expected success because Lange et al. has demonstrated that the functionalized polyisobutenes can be used to achieve the improved properties.

7. Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huffer et al. (US 2005/0090611) in view of Allagier et al. (US Patent 6,677,293), as

Art Unit: 1796

applied to claims 1-3, 7, 9, 11-32, 35-37, 39-51, and further in view of Candau et al. (US 2003/0129151).

The disclosure of Huffer et al. in view of Allagier et al. is adequately set forth in paragraph 5 and is incorporated herein by reference.

Huffer et al. in view of Allagier et al. are silent on the propylene oxide units.

Candau et al. disclose an amphiphilic copolymer comprising at least one hydrophilic block and at least one hydrophobic block wherein the block can be chosen from triblock copolymer of ethylene oxide and of propylene oxide (claim 4) to provide better stabilization in dispersions of insoluble organic compounds and for use in cosmetic compositions (abstract). In light of such benefit, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the propylene oxide units in the disclosure of Huffer et al. with the expected success.

### ***Response to Arguments***

8. Applicants' arguments filed 7/6/2009 have been fully considered and are not persuasive.

The arguments have been addressed in the rejections above.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).



A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUI CHIN whose telephone number is (571)270-7350. The examiner can normally be reached on Monday to Friday; 8:00am - 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1796

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ling-Siu Choi/  
Primary Examiner, Art Unit 1796

/HC/